

Surface Area Calculations
of Pyramids and Cones

p 436-446 7.7-7.8

Students will learn how to calculate surface area of cones, pyramids and spheres

Cone

$$SA_T = \pi r s + \pi r^2$$

Pyramid

$$SA_T = \frac{P_a}{2} + \frac{P_s}{2}$$

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Sphere

$$SA_T = 4\pi r^2$$

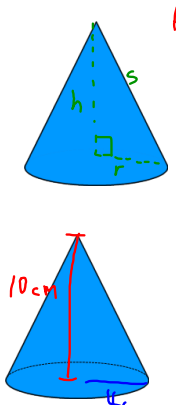
Square Based Pyramid

$$SA_T = 2bs + b^2$$

$$s = \sqrt{h^2 + r^2}$$

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$A_T = \pi r s + \pi r^2$



$$s = \sqrt{h^2 + r^2}$$

$$s = \sqrt{10^2 + 4^2}$$

$$s = \sqrt{116}$$

$$s = 10.8$$

$$SA = \pi r^2 + \pi r s$$

$$= 3.14(4)^2 + 3.14(4)(10.8)$$

$$= 3.14(16) + 135.65$$

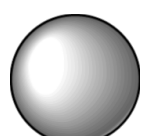
$$= 50.24 + 135.65$$

$$= 185.89 \text{ cm}^2$$

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Calculate the Surface Area

d = 3m



$$r = 1.5$$

$$SA = 4\pi r^2$$

$$SA = 4(3.14)(1.5)^2$$

$$SA = 4(3.14)(2.25)$$

$$SA = 28.26 \text{ m}^2$$

May 22-8:02 AM

p 439-440

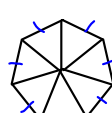
a 1b, 4 b) c)

p. 445 q. 1 b) 5, 7

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4 b) p. 239

h = 10 cm
a = 4 cm
s = 3.9



$$P = 7(3.9) = 27.3$$

$$S = \sqrt{h^2 + a^2}$$

$$S = \sqrt{10^2 + 4^2}$$

$$S = \sqrt{116}$$

$$S = 10.8$$

$$SA = \frac{P_a}{2} + \frac{P_s}{2}$$

$$SA = \frac{27.3(4)}{2} + \frac{27.3(10.8)}{2}$$

$$SA = 54.6 + 147.42$$

$$SA = 202.02 \text{ cm}^2$$

Dec 4-7:18 AM